

FIG. 3

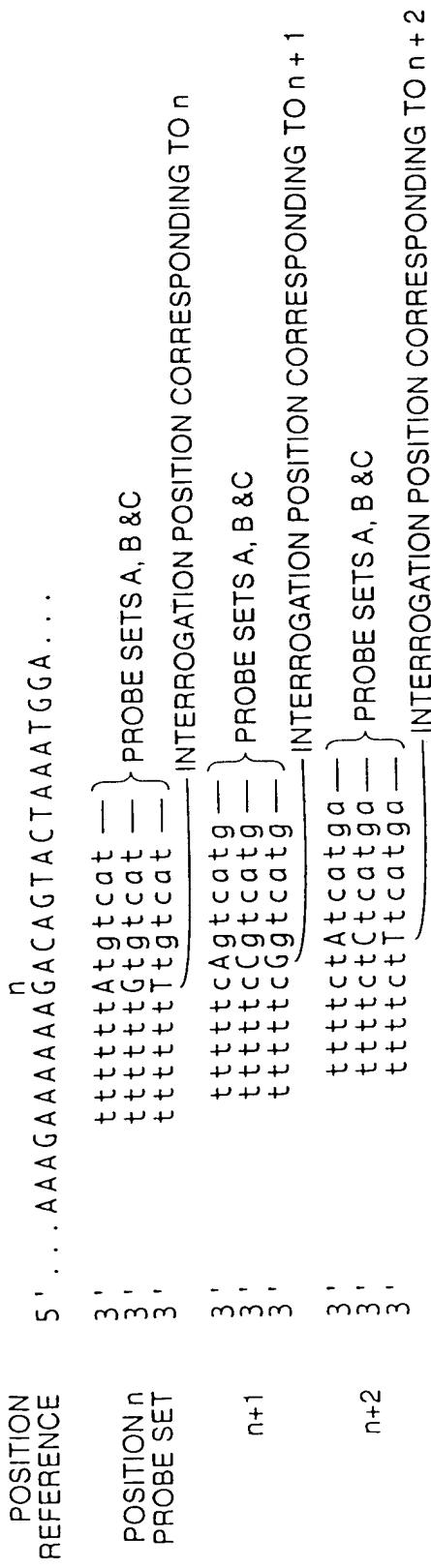
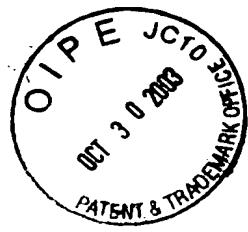
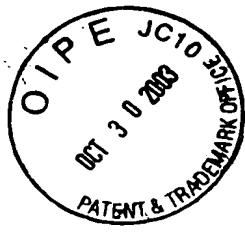


FIG. 3B

GENE  
DNA  
INTERROGATION POSITION CORRESPONDING TO  $n+1$



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REF. SEQ.

$n_1 n_2 n_3 n_4 n_5$

A C T G T T A G C T A A T T G G

A-LANE	TGAC	GAA	ACA	CAAT	AAAG
C-LANE	TGCC	GACA	ACCA	CACT	AACG
G-LANE	TGGC	GAGA	AGGA	CAGT	AAGG
T-LANE	TGTC	GATA	ATTA	CAAT	AAAG

$I_1 \quad I_2 \quad I_3 \quad I_4 \quad I_5$

WT. LANE    TGAC    GACA    ACDA    CAAT    AAAG

FIG. 4

m<sub>1</sub> m<sub>2</sub>

ACTGTTAGCTAATTGG

5' TCG~~AT~~TA 3'

I

CENTRAL  
INTERROGATION  
POSITION

3'  
INTERROGATION  
POSITION

5'  
INTERROGATION  
POSITION

AATCG~~AT~~

5' I 3'

T~~A~~AACC

5' I 3'

FIG. 4B

GGGXCCCTTAF

CCC~~A~~GGG

CCC~~C~~GGG

CCC~~G~~GGG

CCC~~T~~GGG

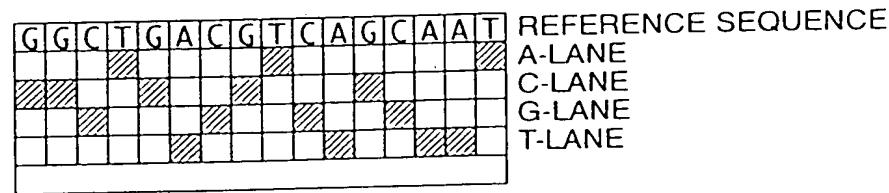
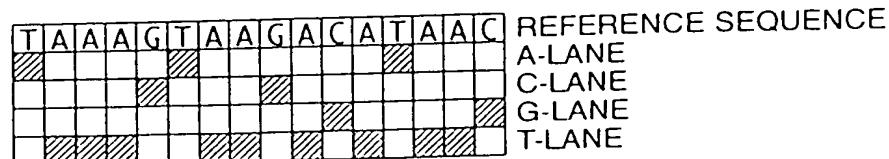
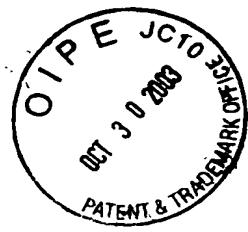
AGGGAAAT

CGGGAAAT

GGGGAAAT

GGGGAAAT

FIG. 4C



3' -CCGACTACAGTCGTT  
3' -CCGACTCCAGTCGTT  
3' -CCGACTGCAGTCGTT  
3' -CCGACTTCAGTCGTT

FIG. 5

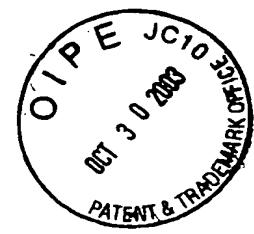
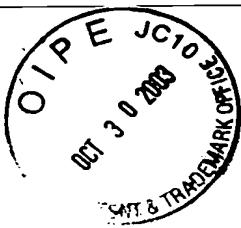


FIG. 6



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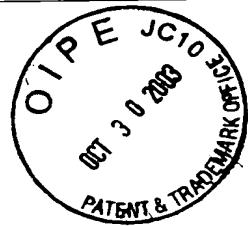
ACTGTTAGCTAAATTGG — REF. SEQ.  
n<sub>1</sub> n<sub>2</sub> n<sub>3</sub> — CORRESPONDING NUCLEOTIDES  
C A A T C G A — PROBE FROM FIRST SET  
I<sub>1</sub> I<sub>2</sub> I<sub>3</sub> — INTERROGATION POSITIONS

C C A T C G A } CORRESPONDING PROBES  
C G A T C G A } FROM SECOND, THIRD AND  
C T A T C G A } FOURTH PROBE SETS  
I<sub>1</sub>

C A A A C G A } CORRESPONDING PROBES  
C A A C C G A } FROM FIFTH, SIXTH AND  
C A A G C G A } SEVENTH PROBE SETS  
I<sub>2</sub>

C A A T C A A } CORRESPONDING PROBES  
C A A T C C A } FROM EIGHTH, NINTH AND  
C A A T C T A } TENTH PROBE SETS  
I<sub>3</sub>

FIG. 7



A C T G T T A G C T A A T T G G — REF. SEQ.  
 C A **□** T C **□** A T  
 C A **□** T C **□** A T

I<sub>1</sub>      I<sub>2</sub> ~ INTERROGATION POSITIONS

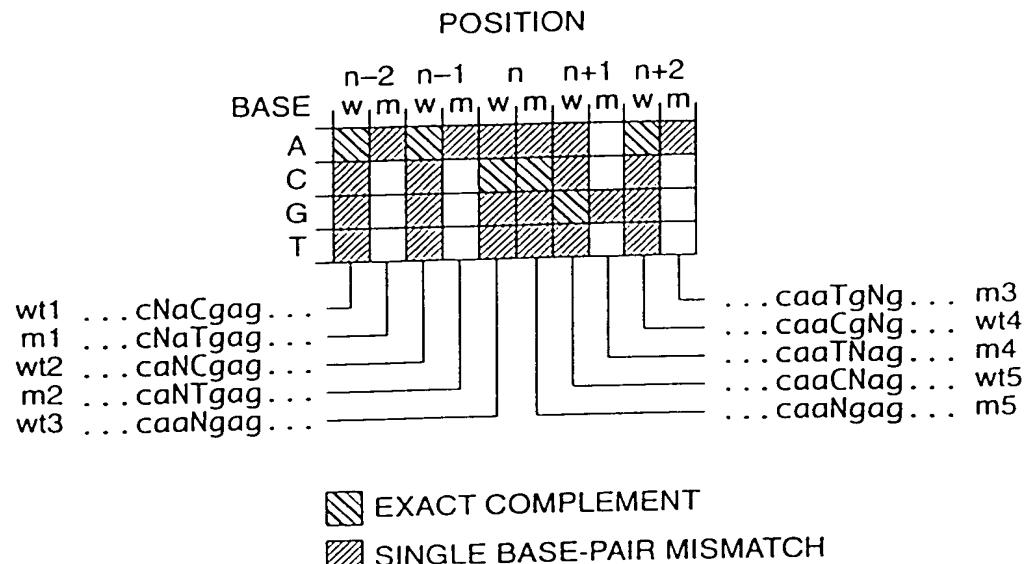
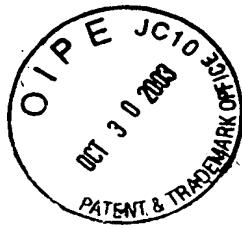
T G **□** C **□** A T  
 T G **□** C **□** G A T  
 T G **□** C **□** G A T  
 T G **□** C **□** A A T

I<sub>3</sub>      I<sub>4</sub> ~ INTERROGATION POSITIONS

FIG. 8

n CORRESPONDING NUCLEOTIDE  
 A T T C C C G G G A T C PROBE FROM FIRST PROBE SET  
 A G G G G C C A T } CORRESPONDING PROBES  
 A G G G G C C A T } FROM SECOND, THIRD AND  
 A G G G A C C A T } FOURTH PROBE SETS  
 A G G T C C A T  
 I -- ~~~~ HELPER MUTATION  
 INTERROGATION POSITION

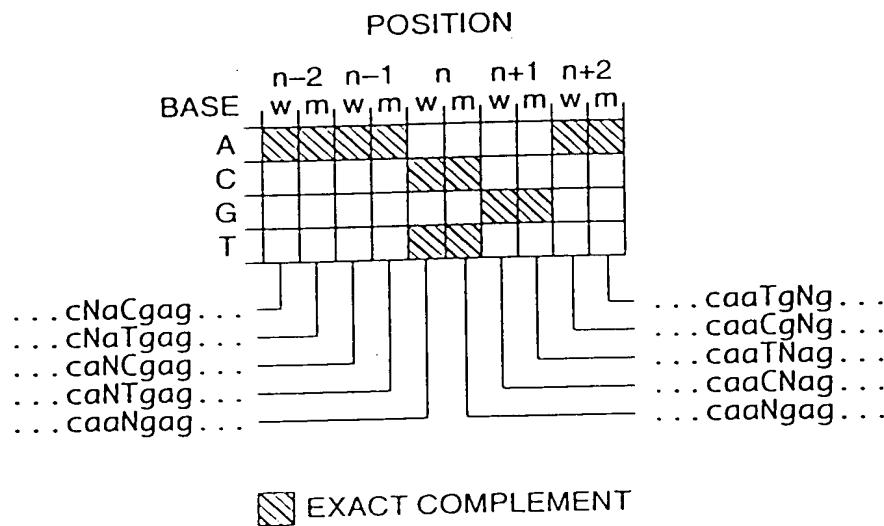
FIG. 9



WILD-TYPE SEQUENCE: 5' =AGGTCAA~~C~~GAGCAA=3'

MUTANT SEQUENCE: 5' =AGGTCAA~~T~~GAGCAA=3'

FIG. 10



WILD-TYPE SEQUENCE: 5' =AGGTCAA~~C~~GAGCAA=3'

MUTANT SEQUENCE: 5' =AGGTCAA~~T~~GAGCAA=3'

FIG. 11

000031  
19881  
PTO/SN

FIG. 12A

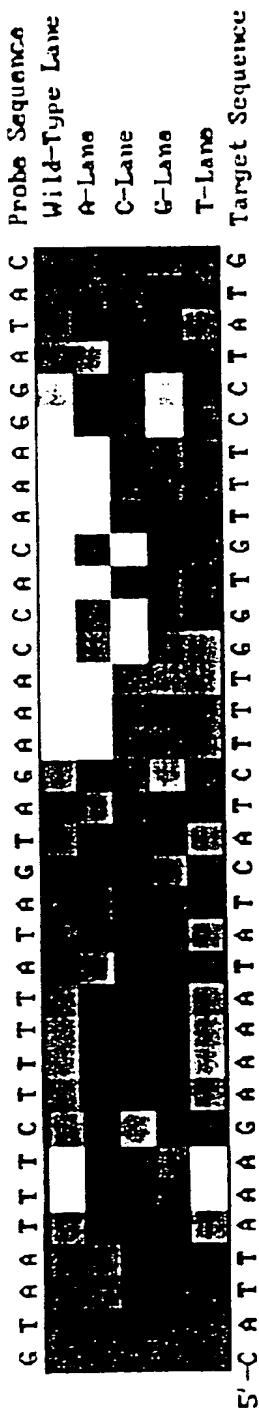


FIG. 12B

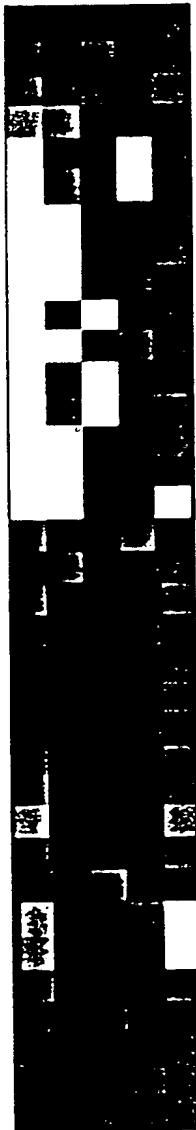
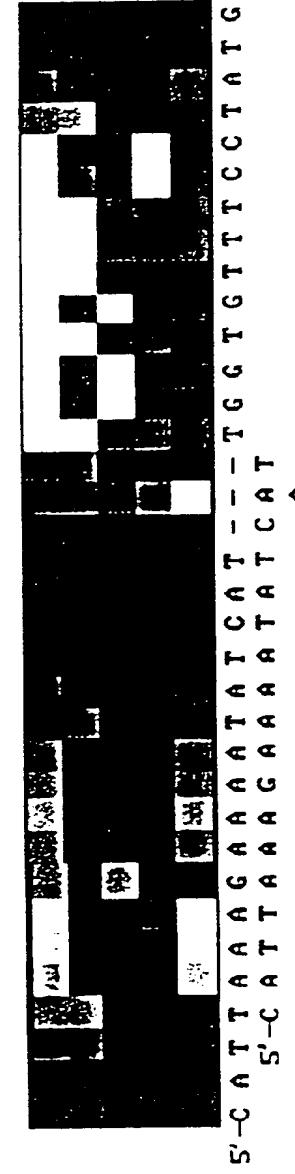


FIG. 12C



Probe set that detects the deletion best

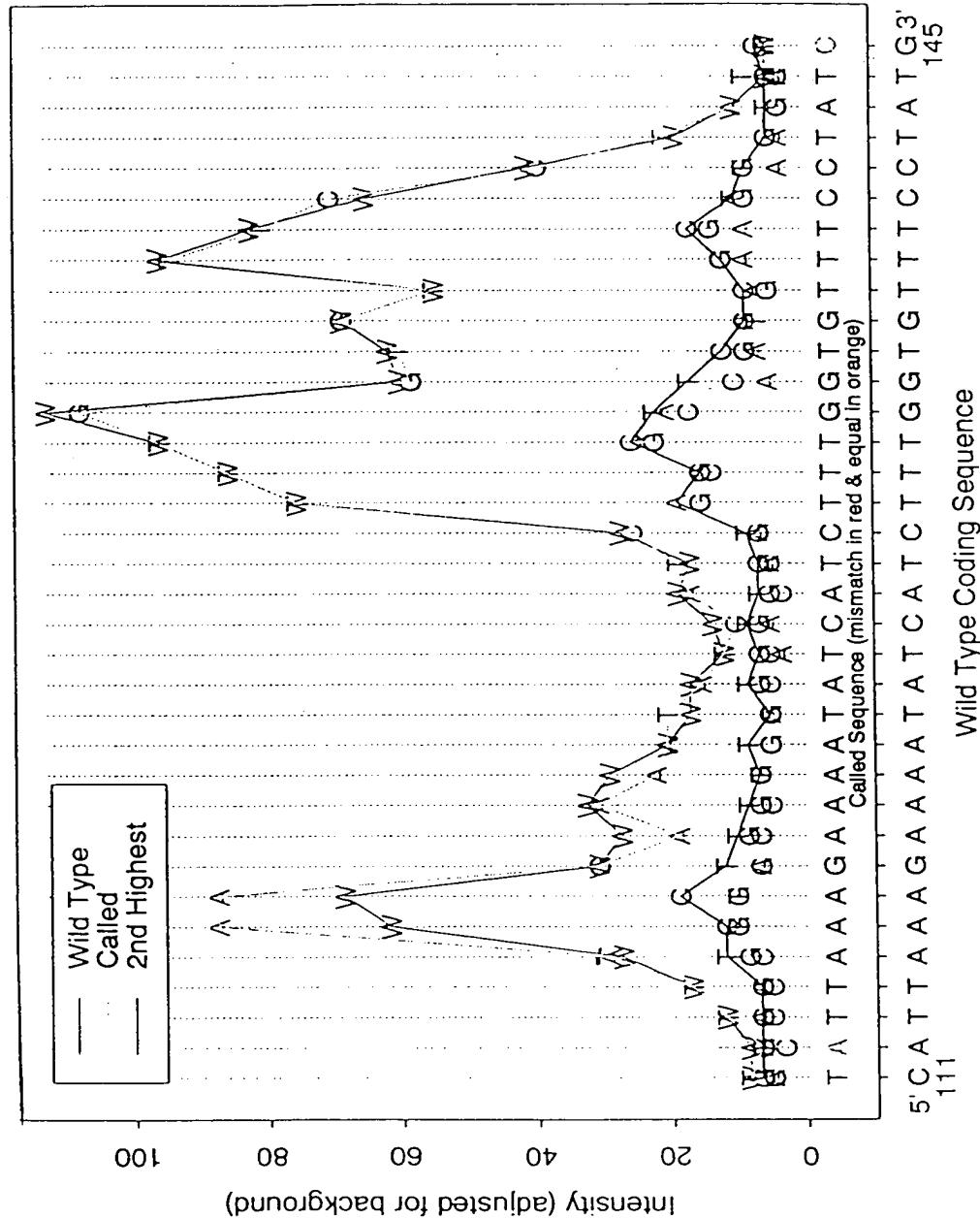
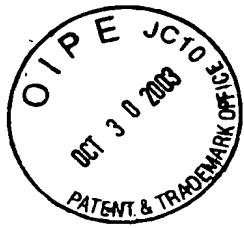


FIG. 13A

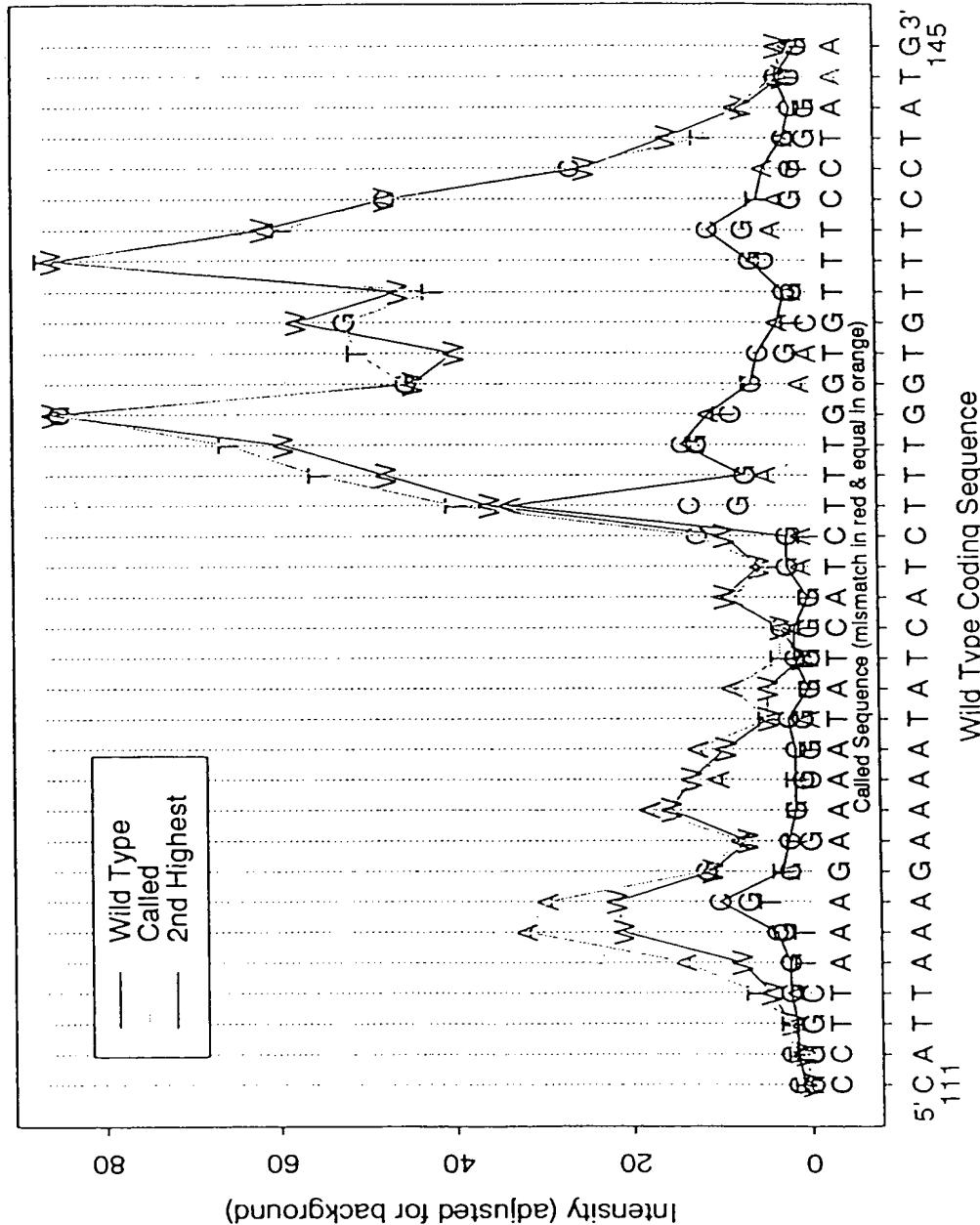
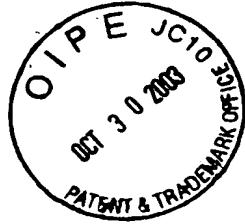


FIG. 13B

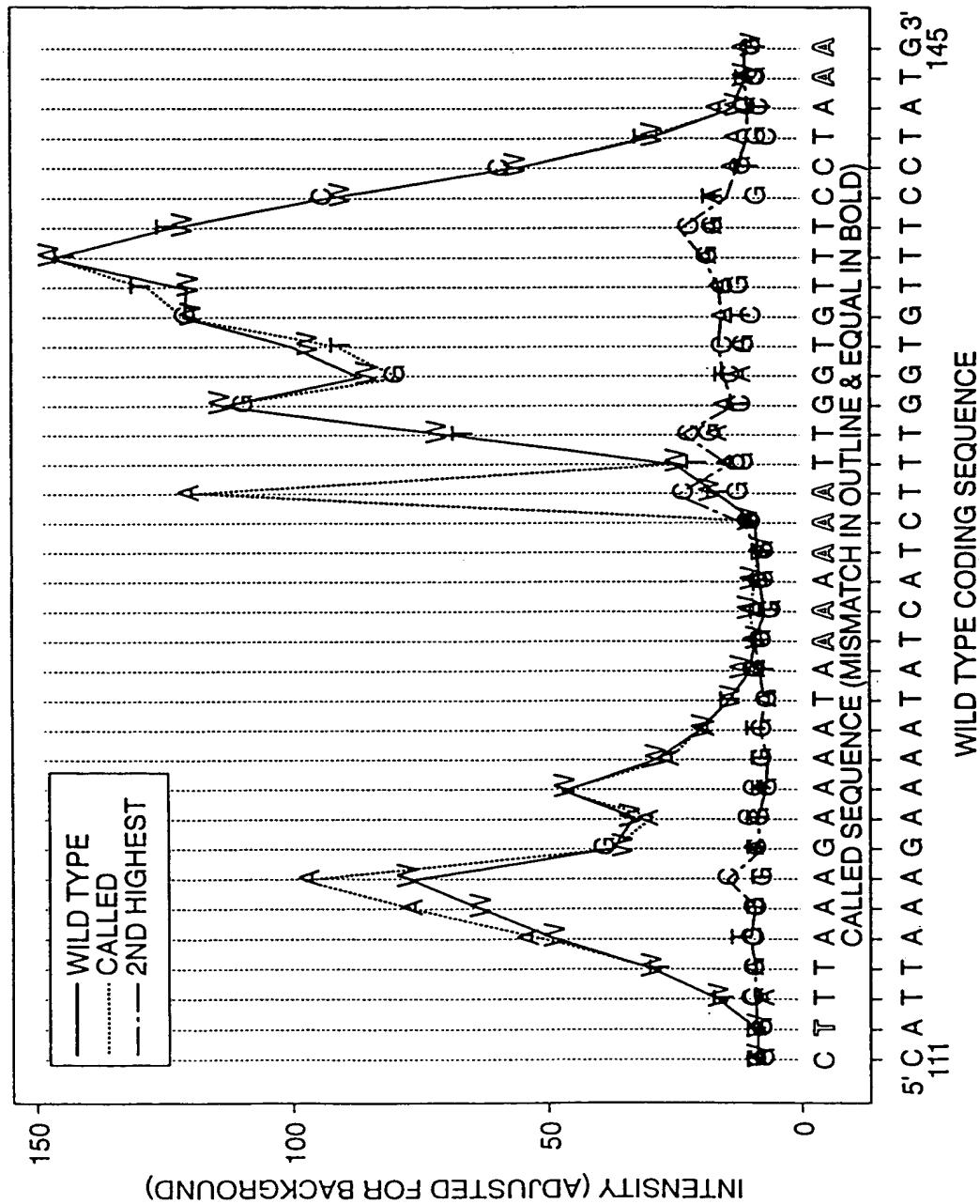
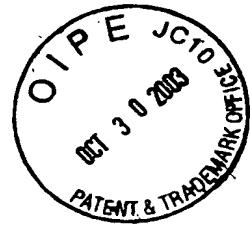


FIG. 13C



103003  
18351 U.S.PTO

FIG. 14A

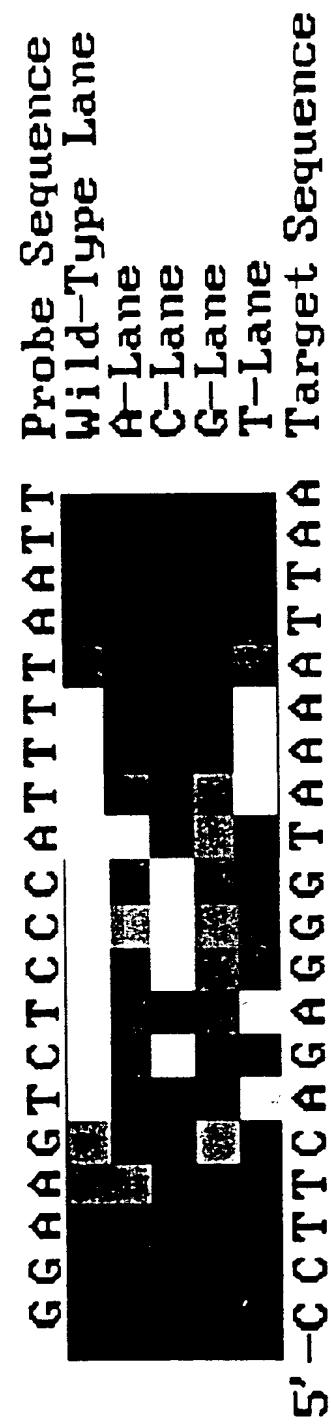


FIG. 14B

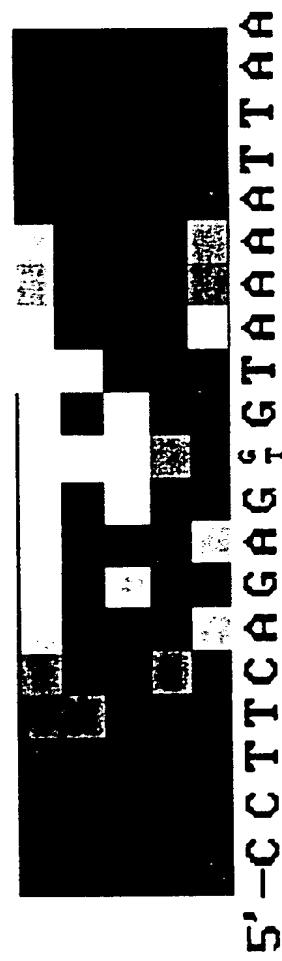
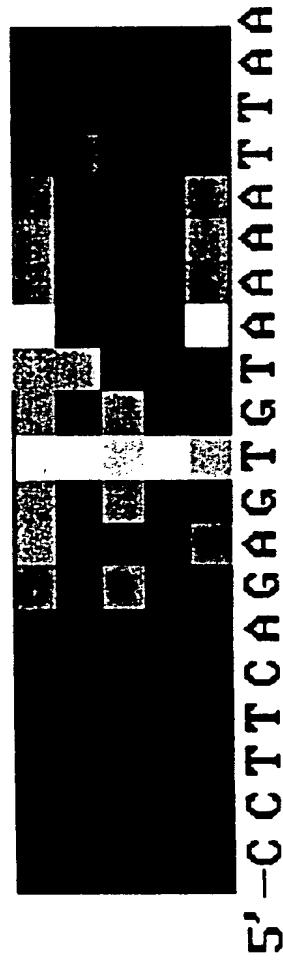


FIG. 14C



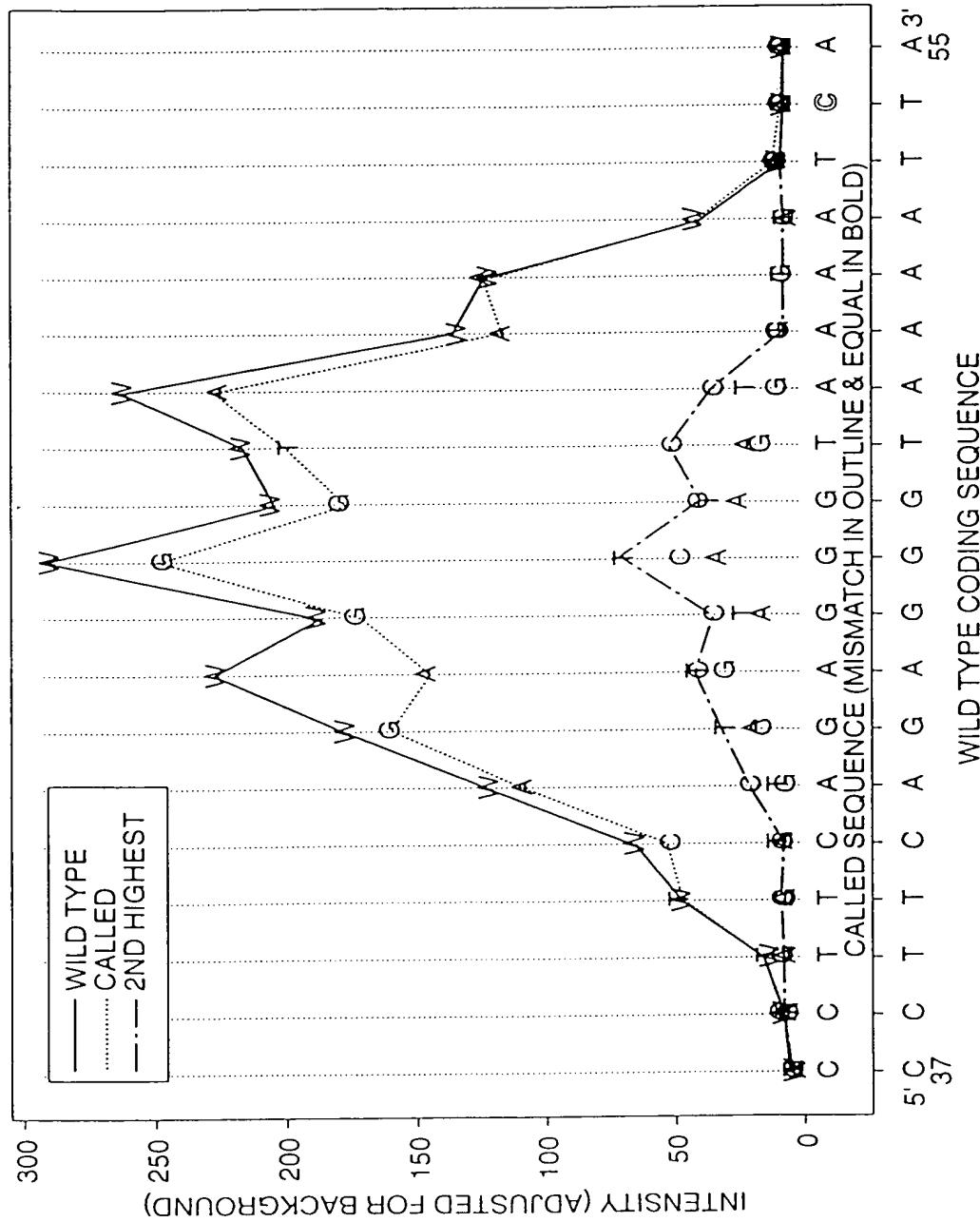


FIG. 15A

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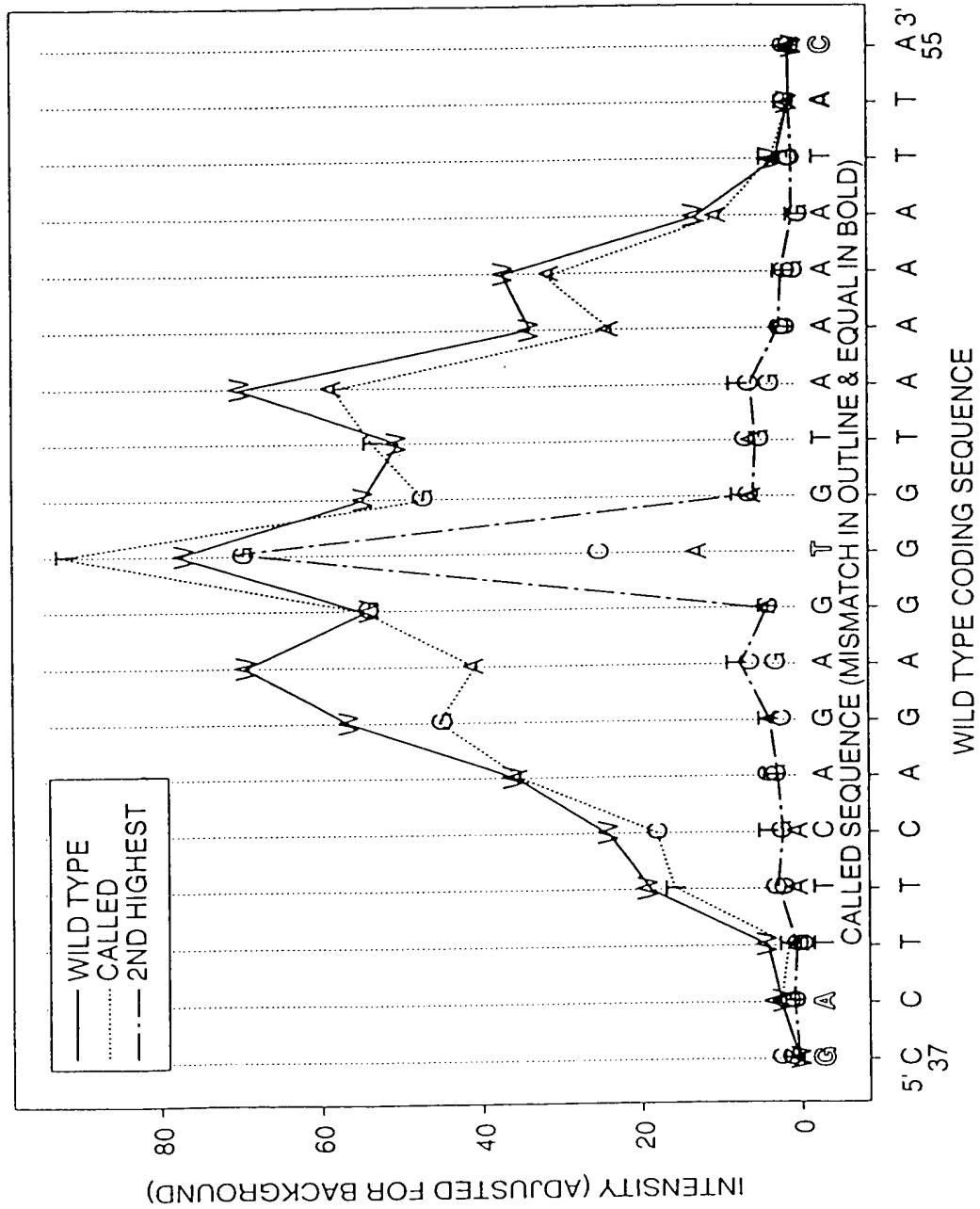


FIG. 15B

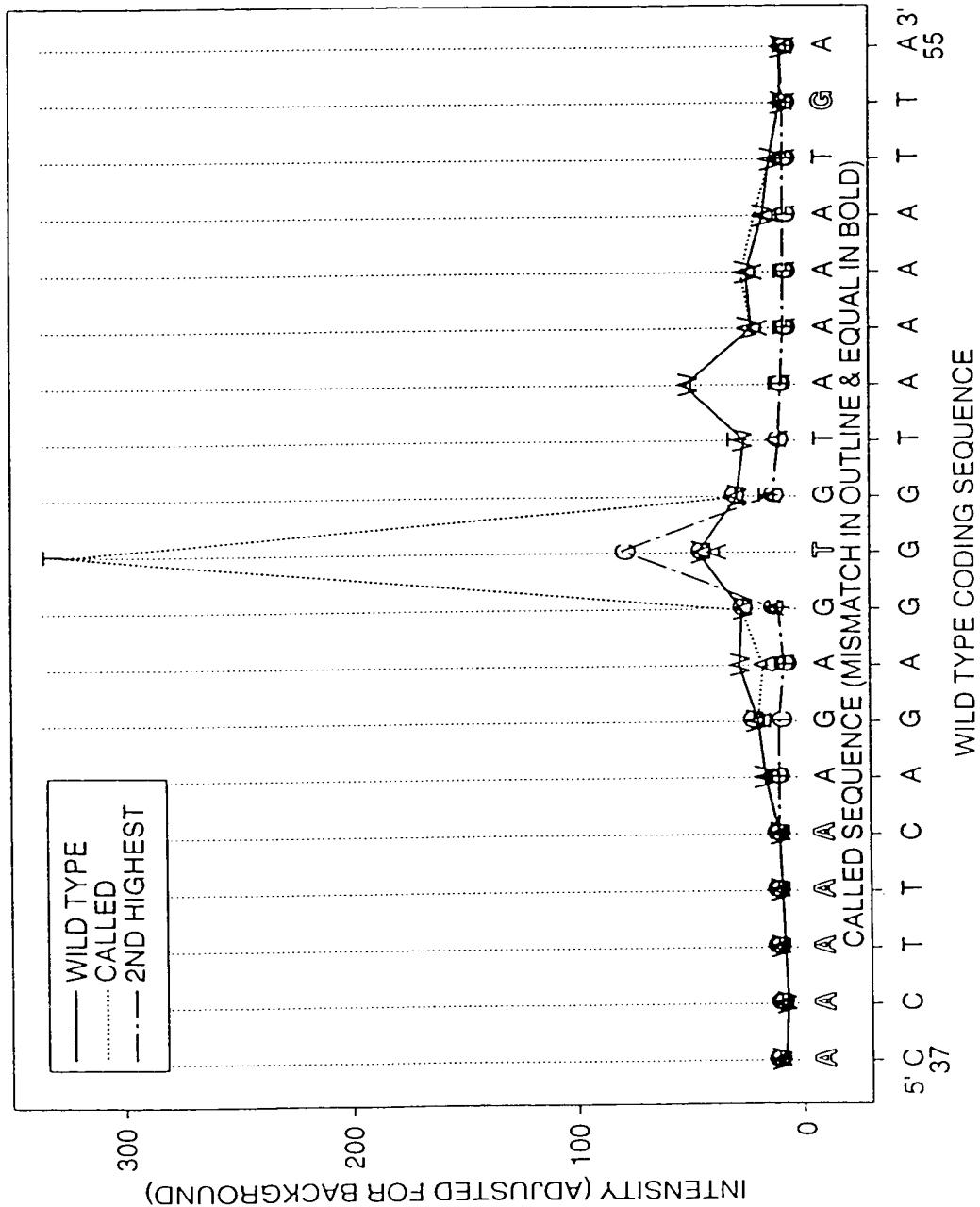
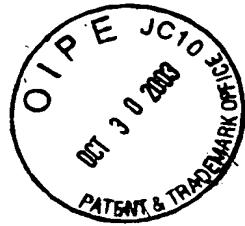
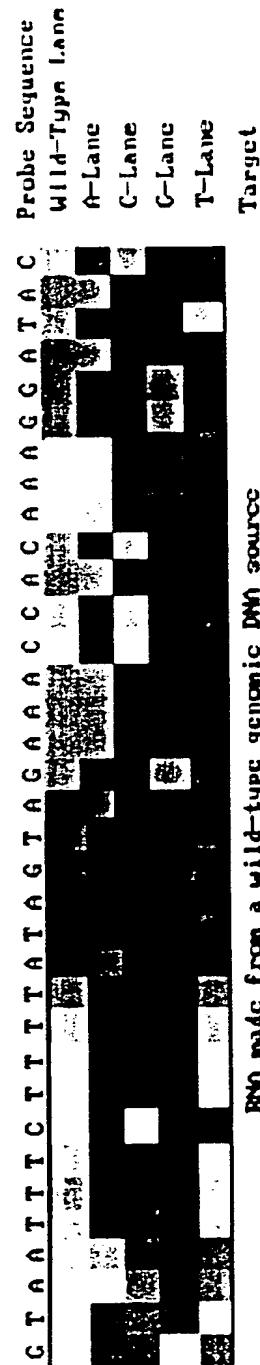


FIG. 15C



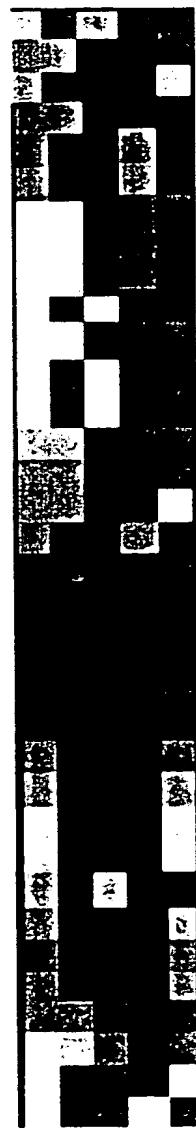
103003  
18351 U.S.PTO

FIG. 16A



RNA made from a wild-type genomic DNA source

FIG. 16B



RNA made from a dF508 heterozygote DNA source

Probe set that detects the mutation

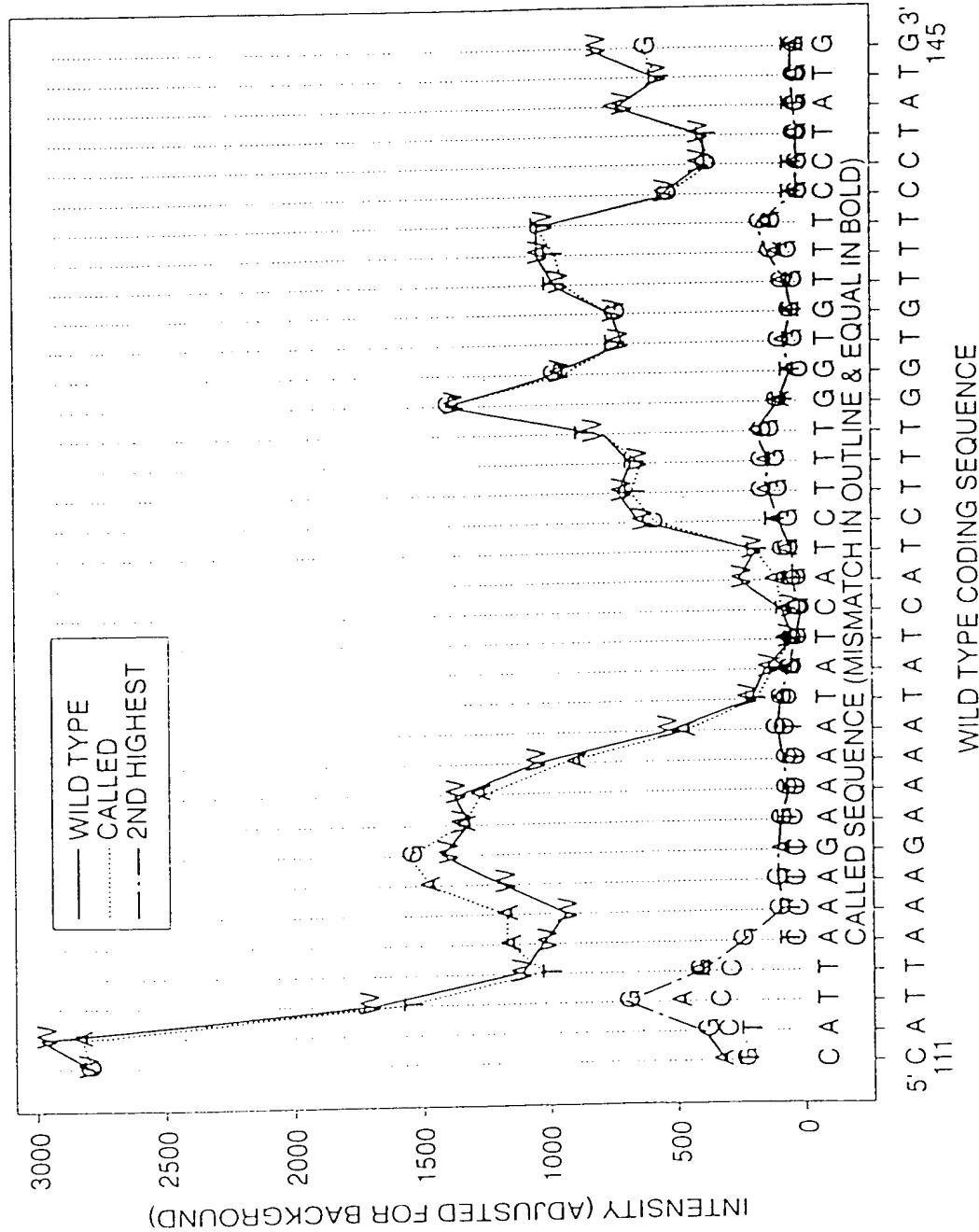
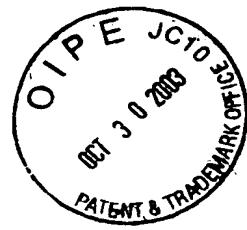


FIG. 17  
(1 of 2)

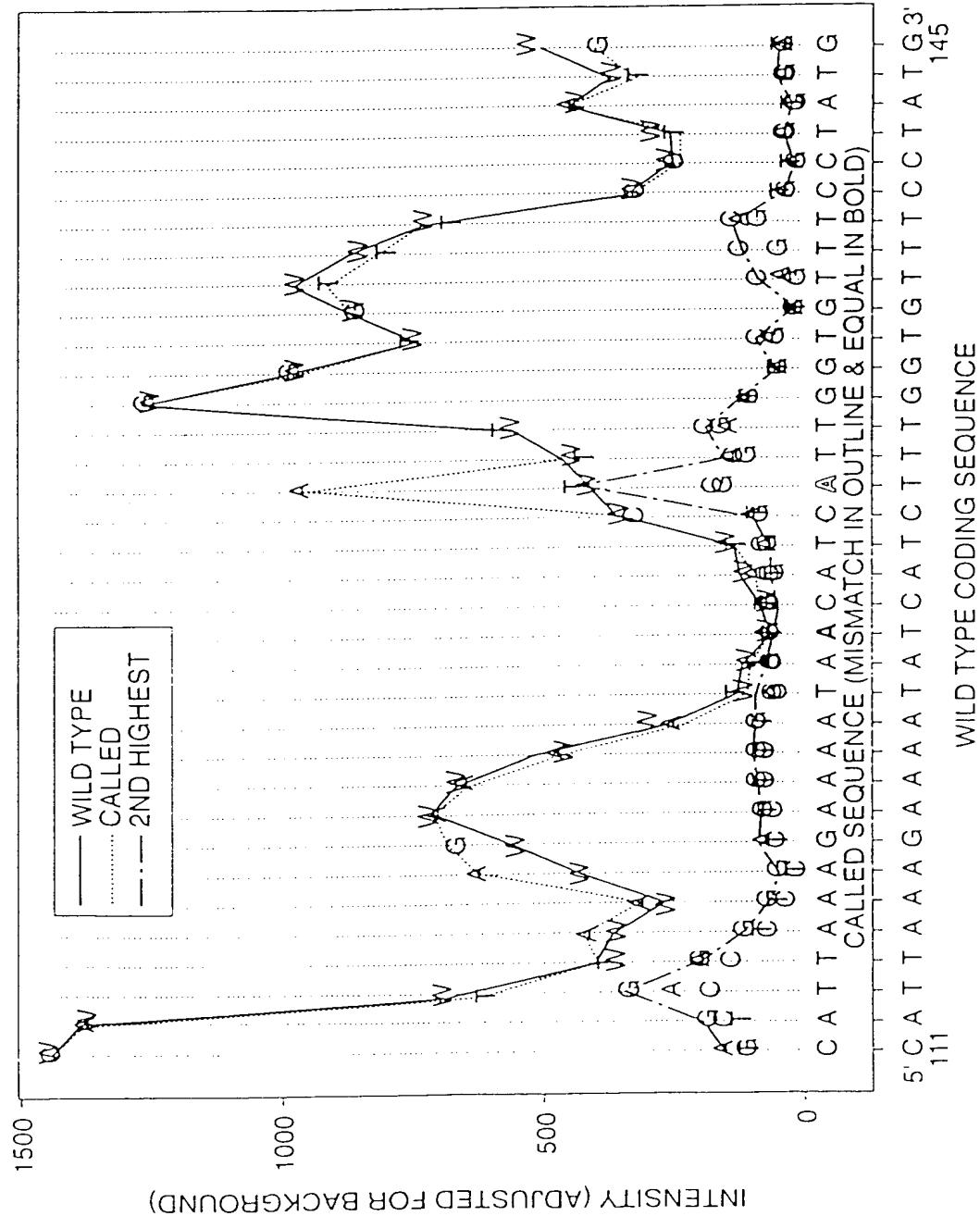
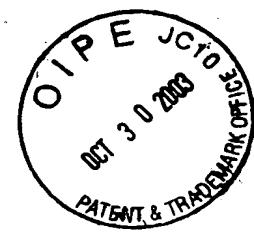


FIG. 17  
(2 of 2)



18351 U.S. PTO  
103003

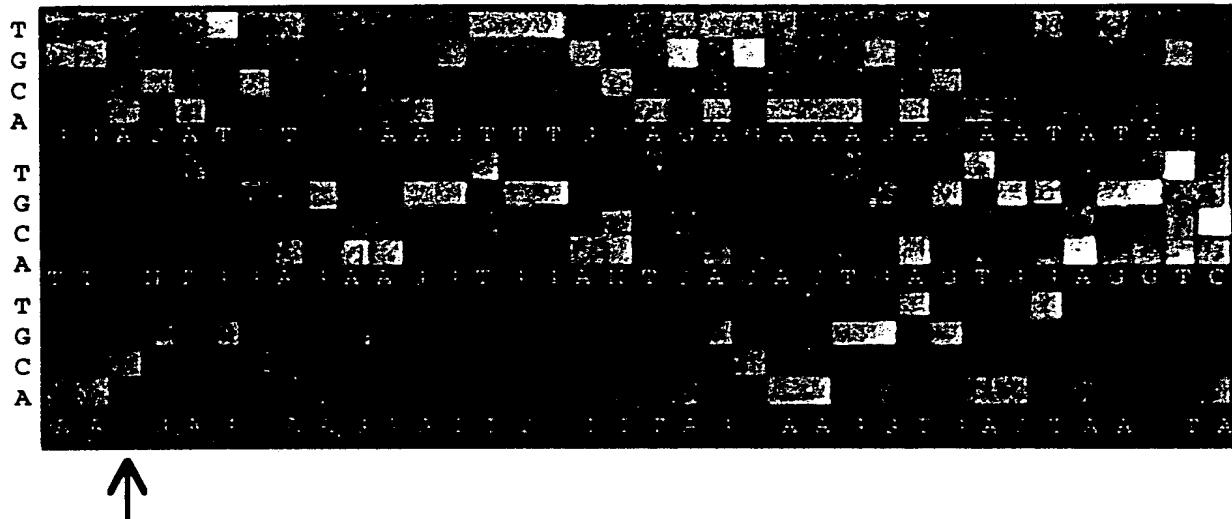


FIG. 18A



FIG. 18B

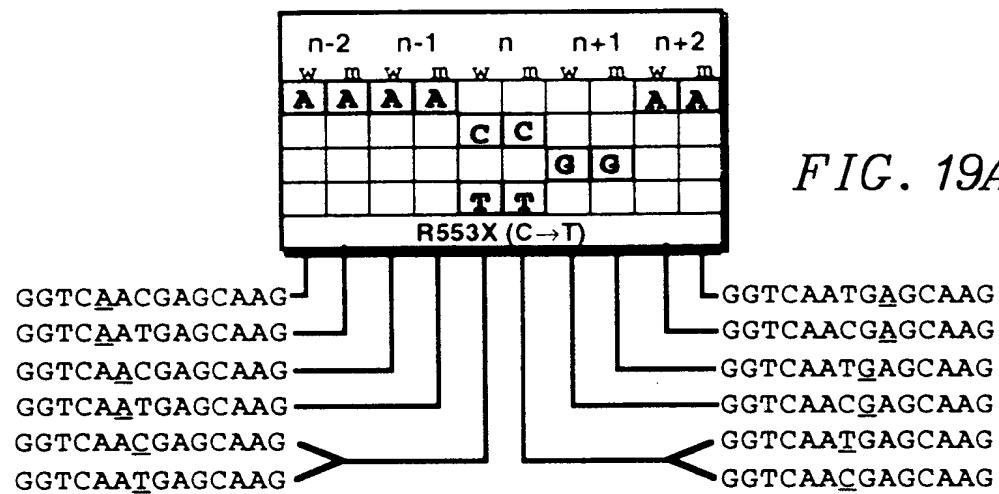
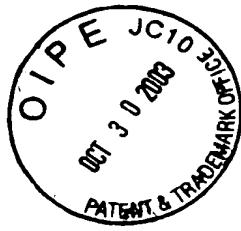


FIG. 19A

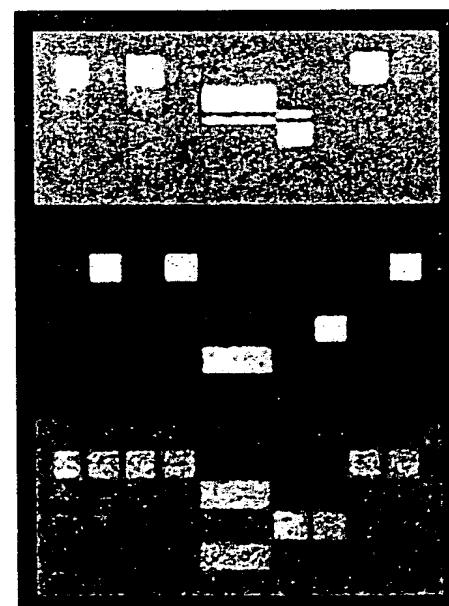


FIG. 19B

FIG. 19C

FIG. 19D



18351 U.S. PTO

FIG. 20A

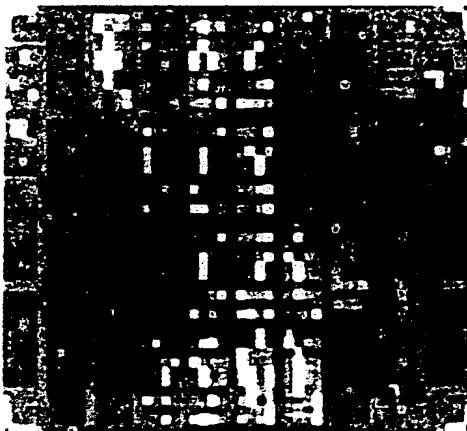
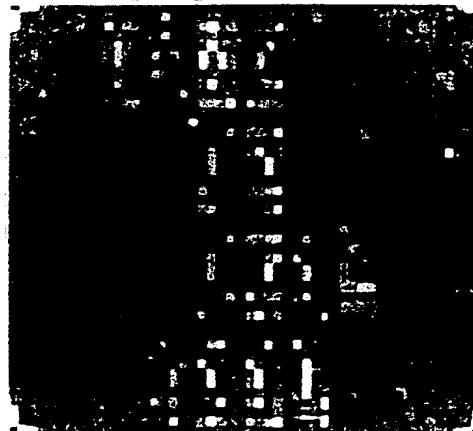


FIG. 20B



n-2	n-1	n	n+1	n+2
W	W	W	W	W
W	W	W	W	W
W	W	W	W	W
W	W	W	W	W
T	T	T	T	T
Q	Q	Q	Q	Q
Q	Q	Q	Q	Q
A	A	A	A	A
G551D(G-A)				



18351 U.S.PTO

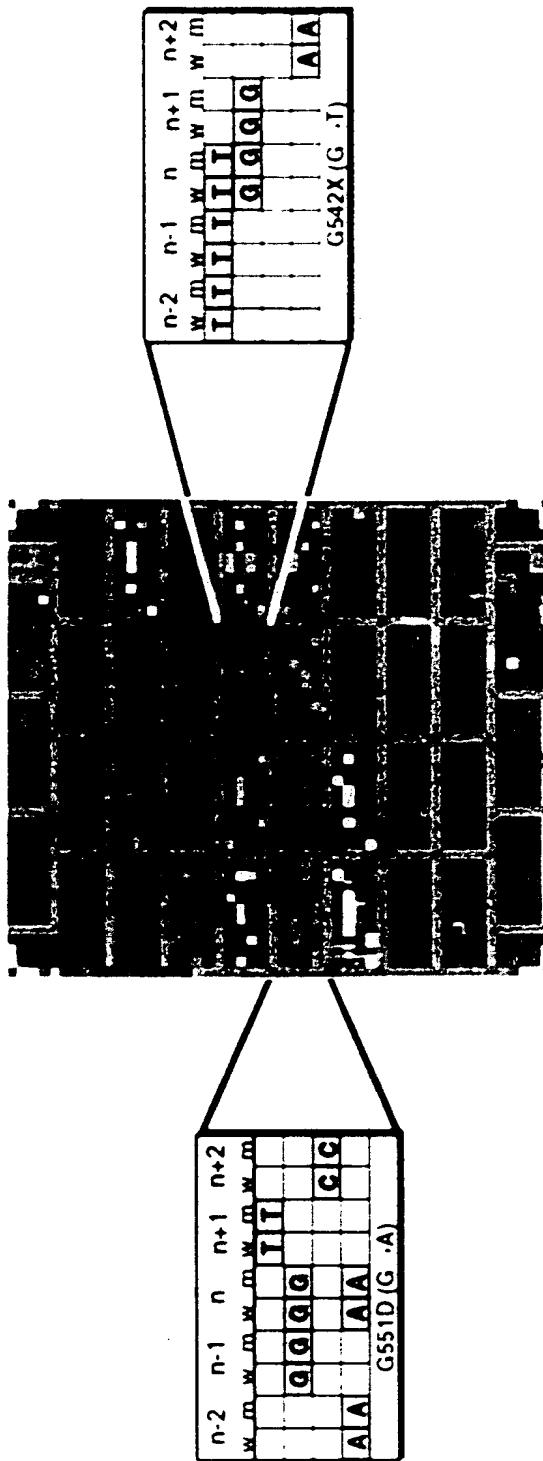


FIG. 21

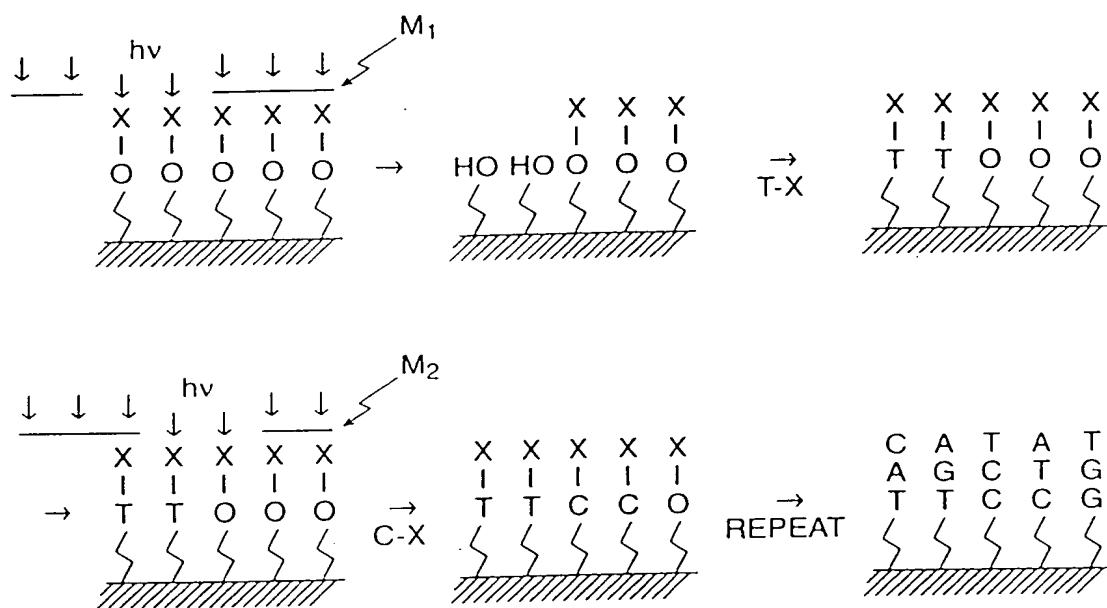
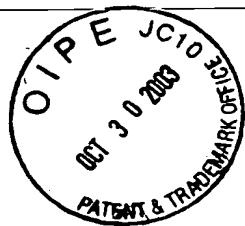
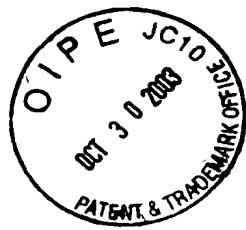


FIG. 22

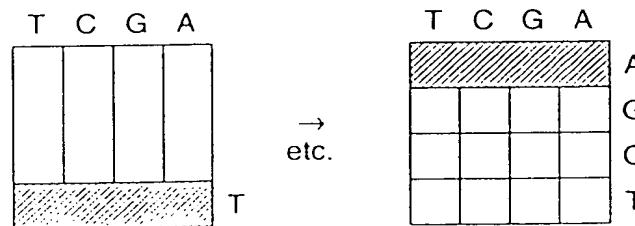
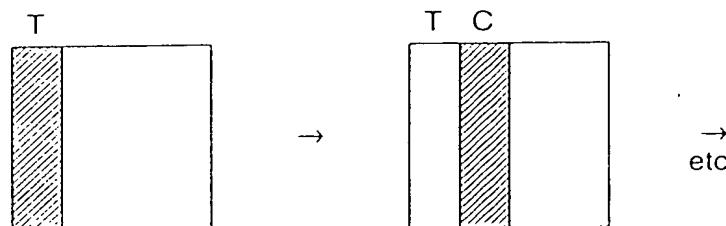


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DIMERS:



IN POLYNOMIAL NOTATION:

$$(T + C + A + G)^2 = \text{ALL DIMERS}$$

TRIMERS:

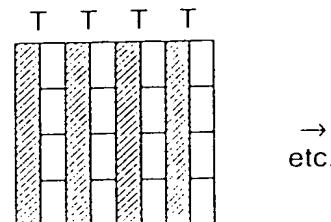


FIG. 23

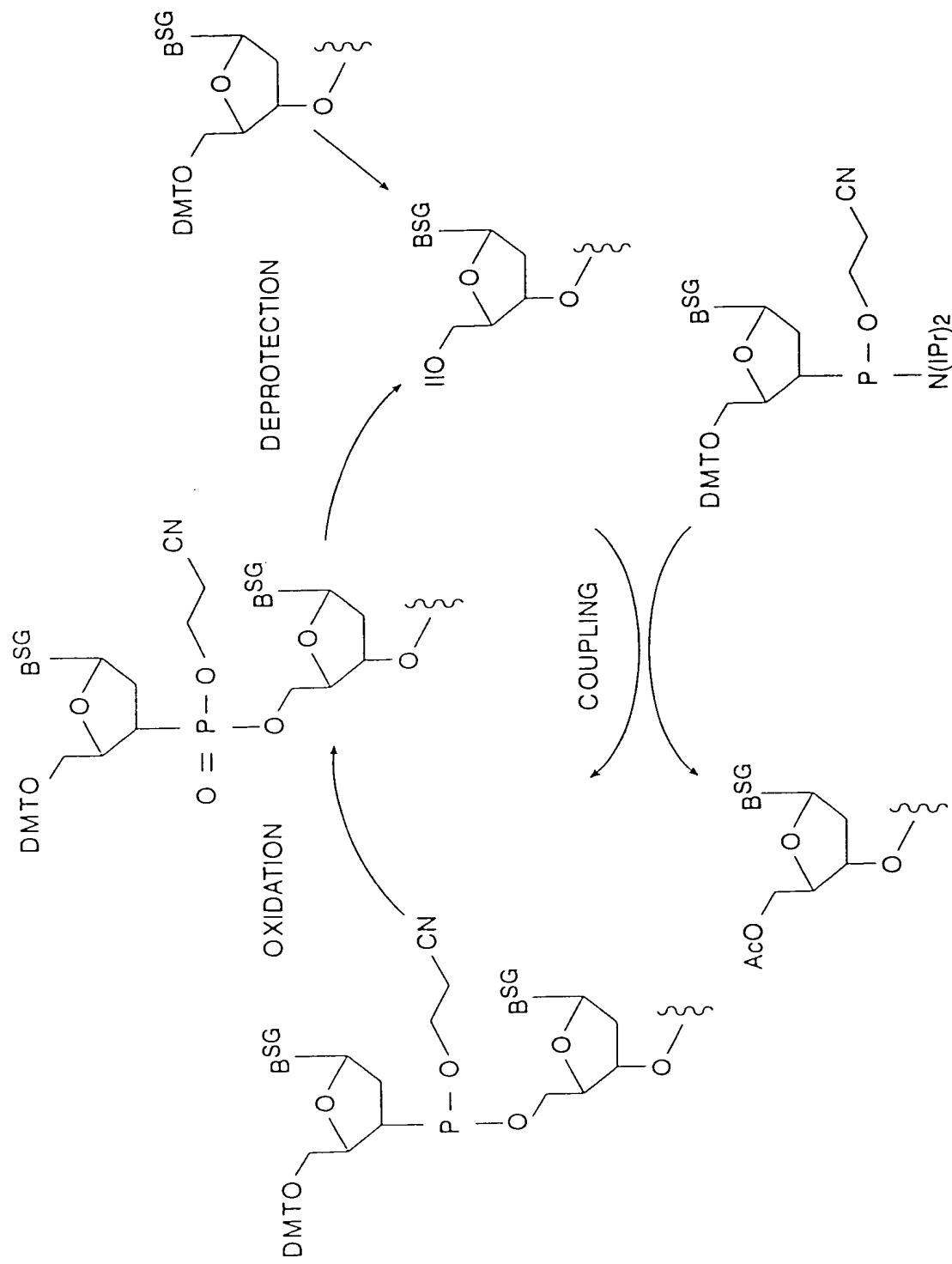
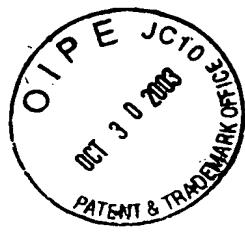


FIG. 24

Given by

John R. Wink

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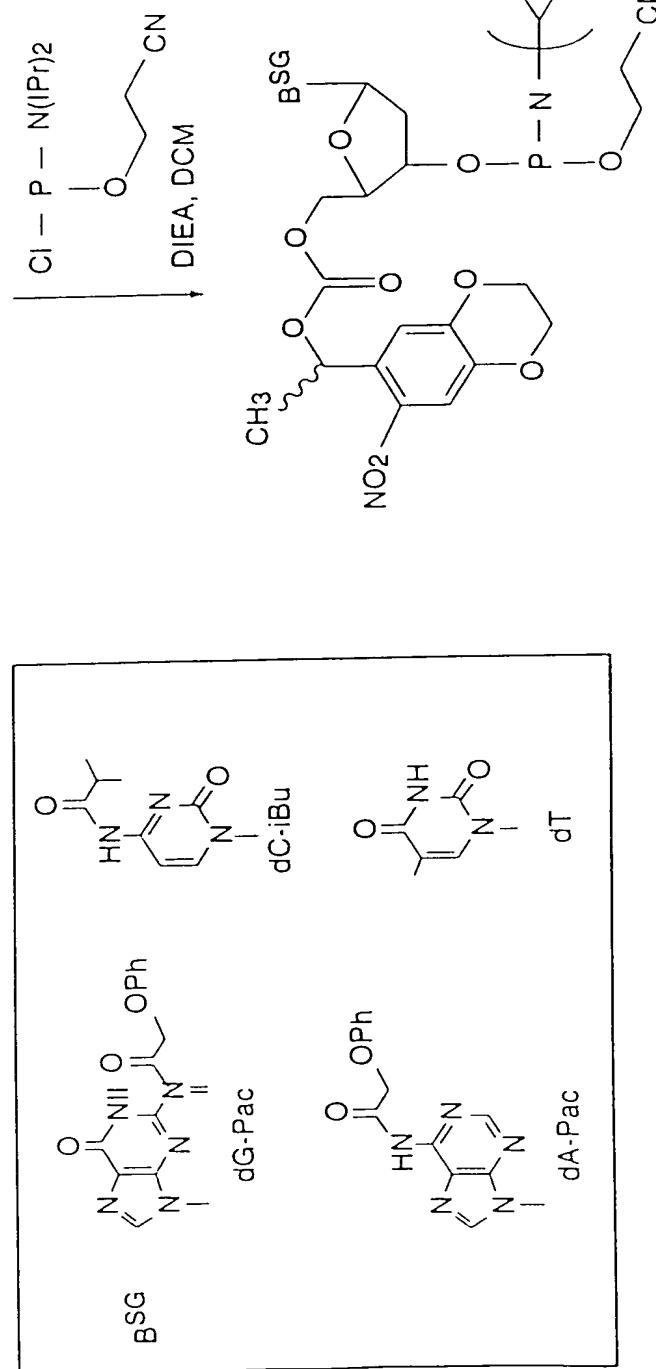
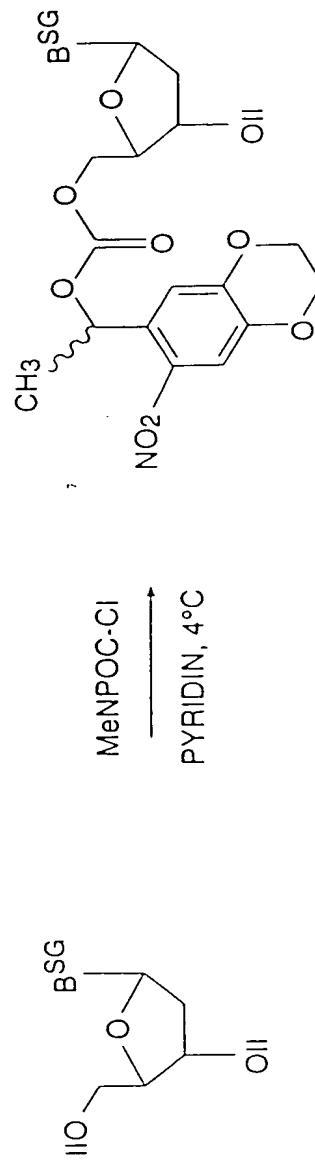
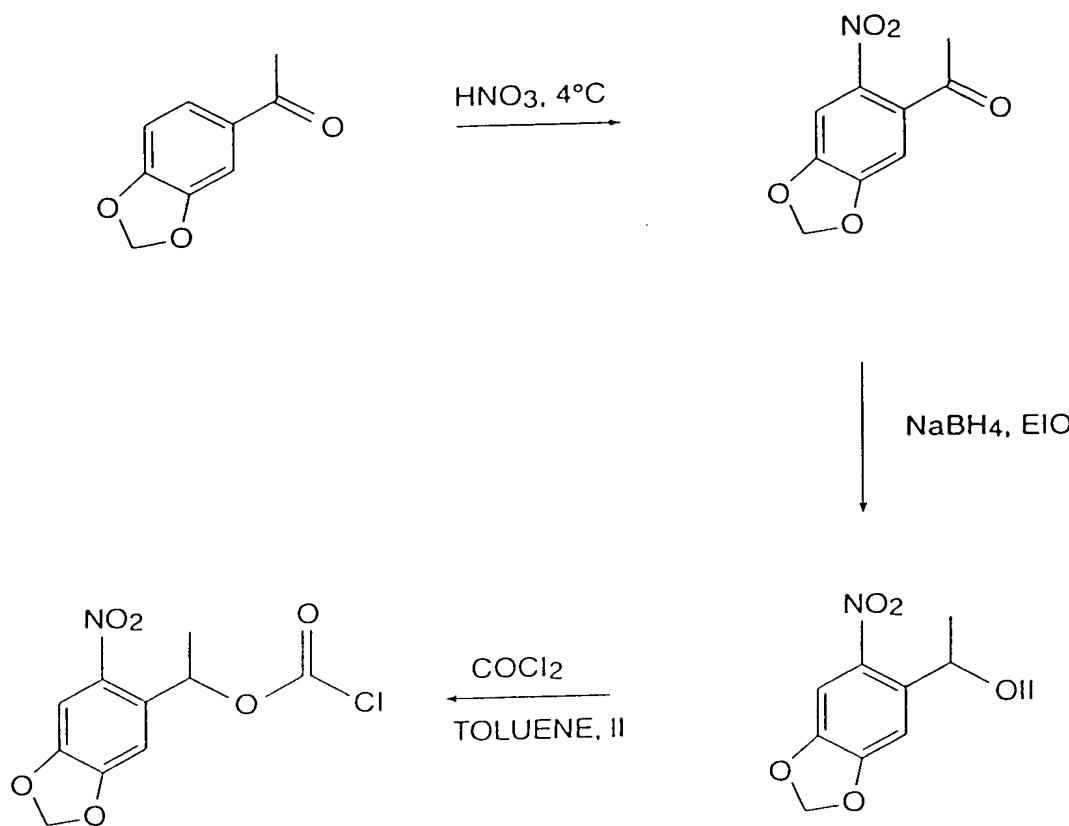
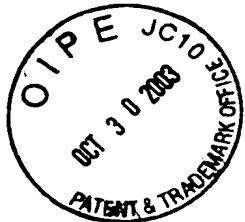


FIG. 25

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WCM

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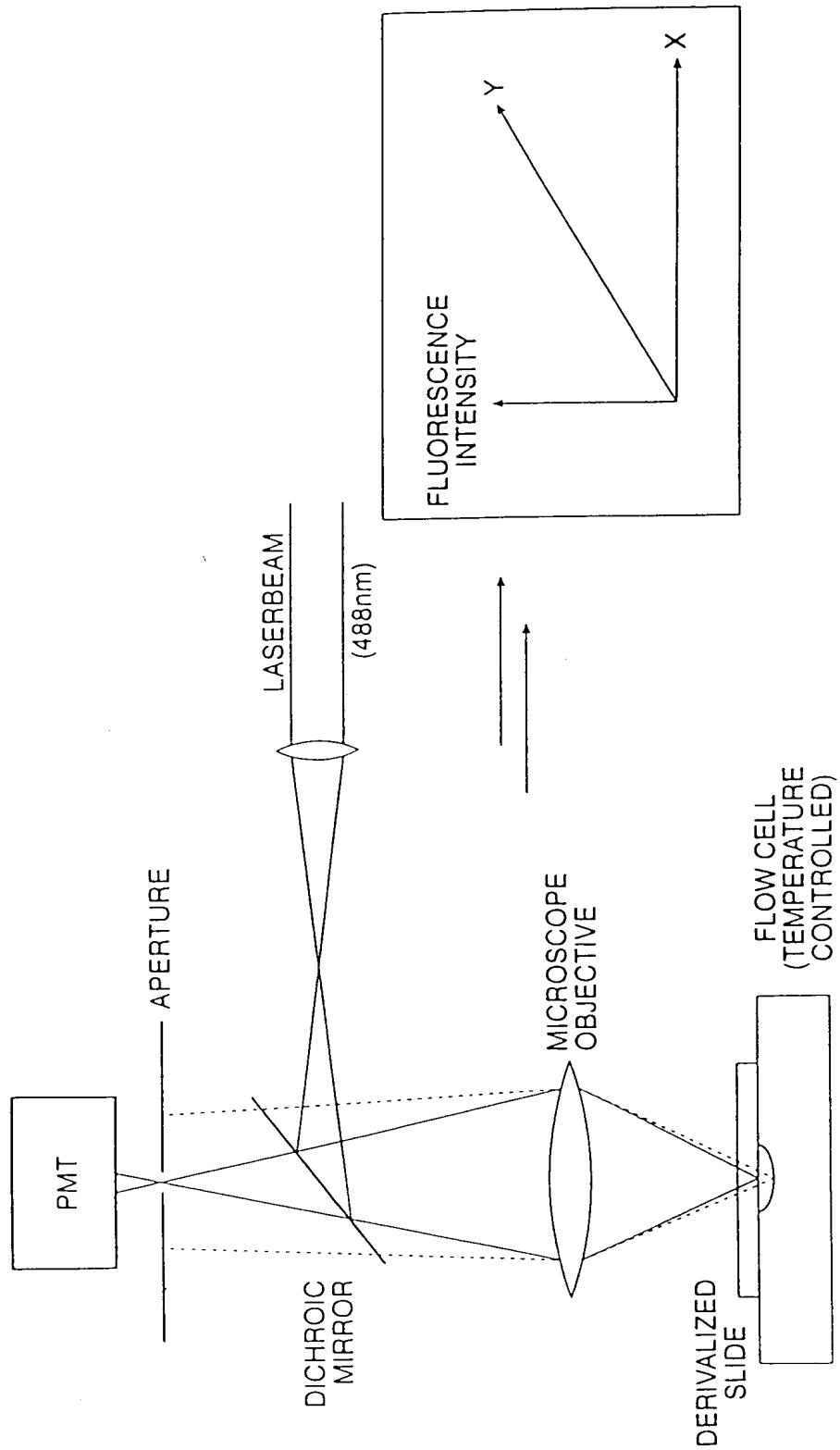


FIG. 27

GEVIEWED

GENE & VIB

LOGO REVIEWED